

IN THE CLAIMS

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Previously presented) A method of validating a pattern for a tufting machine, the method comprising:

providing a pattern;

providing operational characteristics of a tufting machine; and

determining whether said pattern may be implemented on said tufting machine, based on said operational characteristics.

5. (Currently amended) **A method of validating a pattern for a tufting machine, the method comprising:**

providing a pattern;

providing operational characteristics of a tufting machine; and

determining whether said pattern may be implemented on said tufting machine, based on said operational characteristics. ~~The method of claim 4,~~ wherein

determining whether said pattern may be implemented on said tufting machine comprises:

determining a number of colors of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine;

determining whether said number of colors is greater than a predetermined number of colors associated with said at least one needle of said tufting machine, wherein said operational characteristics include said predetermined number of colors; and

if said number of colors is greater than said predetermined number of colors, determining that said pattern may not be implemented on said tufting machine; and

if said number of colors is not greater than said predetermined number of colors, determining that said pattern may be implemented on said tufting machine.

6. (Previously presented) The method of claim 5, wherein determining a number of colors of a portion of said pattern comprises:

analyzing at least one pixel of said portion of said pattern; and
enumerating at least one color of said at least one pixel.

7. (Previously presented) The method of claim 4, wherein providing a pattern comprises:

receiving user input from a user interface, wherein said user input defines characteristics of said pattern.

8. (Previously presented) The method of claim 4, wherein providing a pattern comprises:

receiving said pattern from a storage device.

9. (Previously presented) A method of designating how to load a tufting machine to implement a pattern, said method comprising:

generating a color palette report including a percentage of each color used in a pattern; and

generating a loading report indicating at least one color corresponding to at least one needle of a tufting machine, wherein said loading report provides loading instructions of said tufting machine.

10. (Previously presented) The method of claim 9, wherein generating a color palette report comprises:

determining at least one color of said pattern by analyzing at least one pixel of said pattern; and

determining a percentage that said at least one color is used in said pattern.

11. (Previously presented) The method of claim 9, wherein generating a loading report comprises:

determining at least one color of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine; and
designating said at least one color with said at least one needle of said tufting machine.

12. (Previously presented) The method of claim 11, wherein determining at least one color comprises:

analyzing at least one pixel of said portion of said pattern; and
identifying at least one color of said at least one pixel.

13. (Previously presented) The method of claim 9, the method further comprising:
determining a number of yarn cones necessary to implement said pattern on said tufting machine.

14. (Previously presented) The method of claim 9, the method further comprising:
determining at least one set of yarn cones that correspond to said at least one needle of said tufting machine.

15. (Previously presented) The method of claim 9, the method further comprising:
validating said pattern for said tufting machine.

16. (Previously presented) The method of claim 15, wherein validating said pattern and generating said color palette report occurs simultaneously.

17. (Previously presented) The method of claim 15, wherein validating said pattern and generating said loading report occurs simultaneously.

18. (Currently amended) A system for validating a pattern for a tufting machine, the system comprising:
a pattern storage unit adapted to store a pattern;

a machine data storage unit adapted to store operational characteristics of a tufting machine; **and**

a control unit adapted to receive said pattern from said pattern storage unit, receive operational characteristics of said tufting machine from said machine data storage unit, and determine whether said pattern may be implemented on said tufting machine based on said operational characteristics.

19. (Previously presented) The system of claim 18, wherein said control unit is further adapted to determine a number of colors of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine.

20. (Currently amended) **A system for validating a pattern for a tufting machine, the system comprising:**

a pattern storage unit adapted to store a pattern;

a machine data storage unit adapted to store operational characteristics of a tufting machine; and

a control unit adapted to receive said pattern from said pattern storage unit, receive operational characteristics of said tufting machine from said machine data storage unit, and determine whether said pattern may be implemented on said tufting machine based on said operational characteristics

wherein said control unit is further adapted to determine a number of colors of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine, and

~~The system of claim 19,~~ wherein said control unit is further adapted to determine whether said number of colors is greater than a predetermined number of colors associated with at least one needle of said tufting machine.

21. (Previously presented) The system of claim 19, wherein said control unit is further adapted to analyze at least one pixel of said portion of said pattern and enumerate at least one color of said at least one pixel.

22. (Previously presented) The system of claim 18, further comprising:
a user interface adapted to receive user input from a user and to provide said user input to said control unit.
23. (Previously presented) The system of claim 22, wherein said user input defines characteristics of said pattern.
24. (Previously presented) The system of claim 18, further comprising:
a report data storage unit adapted to store report data, wherein said report data is generated by said control unit.
25. (Currently amended) The ~~method~~system of claim 24, wherein said control unit is further adapted to provide said report data to a user interface.
26. (Previously presented) A computer-readable medium comprising computer-executable instructions for validating a pattern for a tufting machine, the computer-executable instructions comprising:
providing a pattern;
providing operational characteristics of a tufting machine; and
determining whether said pattern may be implemented on said tufting machine, based on said operational characteristics.
27. (Currently amended) **A computer-readable medium comprising computer-executable instructions for validating a pattern for a tufting machine, the computer-executable instructions comprising:**
providing a pattern;
providing operational characteristics of a tufting machine; and
determining whether said pattern may be implemented on said tufting machine, based on said operational characteristics,
~~The computer medium of claim 26,~~ wherein determining whether said pattern may be implemented on said tufting machine comprises:

determining a number of colors of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine;

determining whether said number of colors is greater than a predetermined number of colors associated with said at least one needle of said tufting machine, wherein said operational characteristics include said predetermined number of colors; and

if said number of colors is greater than said predetermined number of colors, determining that said pattern may not be implemented on said tufting machine; and

if said number of colors is not greater than said predetermined number of colors, determining that said pattern may be implemented on said tufting machine.

28. (Previously presented) The computer medium of claim 27, wherein determining a number of colors of a portion of said pattern comprises:

analyzing at least one pixel of said portion of said pattern; and
enumerating at least one color of said at least one pixel.

29. (Previously presented) The computer medium of claim 26, wherein providing a pattern comprises:

receiving user input from a user interface, wherein said user input defines characteristics of said pattern.

30. (Previously presented) The computer medium of claim 26, wherein providing a pattern comprises:

receiving said pattern from a storage device.

31. (Previously presented) A computer-readable medium comprising computer-executable instructions for designating how to load a tufting machine to implement a pattern, said computer-executable instructions comprising:

generating a color palette report including a percentage of each color used in a pattern; and

generating a loading report indicating at least one color corresponding to at least one needle of a tufting machine, wherein said loading report provides loading instructions of said tufting machine.

32. (Previously presented) The computer medium of claim 31, wherein generating a color palette report comprises:

determining at least one color of said pattern by analyzing at least one pixel of said pattern; and

determining a percentage that said at least one color is used in said pattern.

33. (Previously presented) The computer medium of claim 31, wherein generating a loading report comprises:

determining at least one color of a portion of said pattern, wherein said portion of said pattern corresponds to at least one needle of said tufting machine; and

designating said at least one color with said at least one needle of said tufting machine.

34. (Previously presented) The computer medium of claim 33, wherein determining at least one color comprises:

analyzing at least one pixel of said portion of said pattern; and

identifying at least one color of said at least one pixel.

35. (Previously presented) The computer medium of claim 31, the computer-executable instructions further comprising:

determining a number of yarn cones necessary to implement said pattern on said tufting machine.

36. (Previously presented) The computer medium of claim 31, the computer-executable instructions further comprising:

determining at least one set of yarn cones that correspond to said at least one needle of said tufting machine.

37. (Previously presented) The computer medium of claim 31, the computer-executable instructions further comprising:
validating said pattern for said tufting machine.

38. (Previously presented) The computer medium of claim 37, wherein validating said pattern and generating said color palette report occurs simultaneously.

39. (Previously presented) The computer medium of claim 37, wherein validating said pattern and generating said loading report occurs simultaneously.